

## ABSTRACT

The present invention involves methods and compositions for increasing the susceptibility of target cells to transduction by gene transfer vectors. Specifically, it is proposed that increasing intracellular permeability in epithelial tissue increases the percentage of input vector that will transduce that target tissue. Specific examples show that receptors for retrovirus are preferentially accessible on the basolateral surface of airway epithelia, and permeabilizing such tissues results in greater infection with retrovirus. This has important implications in gene therapy, for example, to treat cystic fibrosis with the CFTR gene.